REMARKS

Claims 1-8, 11 and 23 are canceled herein. Claims 9, 12, 13, 21 and 24 are amended. Support for the amendment is found, for example, in the original specification on page 13, lines 6-8. Hence no issues of new matter are presented. Upon entry of the amendment, claims 9-10, 12-22 and 24 will be all of the claims pending in the application.

I. Information Disclosure Statement

In view of the Examiner's statement regarding the listing of references in the specification, Applicants submit herewith an Information Disclosure Statement, Modified PTO/SB/08 (A & B) Form listing the Applied Physics Letters article mentioned on page 1 of the original specification, and a copy thereof. The Information Disclosure Statement is accompanied by a check for the fee of $180.00 under 37 C.F.R. § 1.17(p).

Applicants formally request acknowledgement and consideration thereof by return of a copy a the PTO/SB/08 (A&B) Form initialed by the Examiner.

II. Response to Claim Rejections under 35 U.S.C. § 102

Claims 1-6, 9-14 and 17-24 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Mori et al.

Applicants respectfully traverse the rejection. Claims 1-6, 17-20 and 23 are canceled herein and therefore the rejection as to these claims is moot.

Mori et al teaches a polymer having the structure represented by the following formula (1): $-CH_2-C(A^1)(-CH_2)_x-A^2)_{n-}$; wherein A^1 represents a hydrogen or an alkyl group having 1 to 8 carbon atoms, A^2 represents an aromatic ring, and n is an integer of 3 or more. The carbon atom to which A^1 is attached is bonded via an interposing moiety, an oligomer chain $-(CH_2)_x-$ (x being

an integer of from 0 to 6), to a compound (5) of A^2 representing a carbazole compound at the N atom placed at the 9 position thereof (see col. 5, lines 1-10 and lines 45-52).

In contrast, in the present invention, in compounds of formula (2) of the present invention, a carbon atom to which R_1 is attached in the polymer chain is bonded to the carbazole ring at position 3 or 6 thereof. This is a major distinguishing feature of the presently claimed invention.

Claim 9 is amended herein to recite a light emitting device comprising a pair of electrodes and one or more organic layers disposed therebetween, wherein at least one of said organic layers comprises a compound represented by formula (2), wherein a carbon atom to which R_1 is attached is bonded to the 3- or 6-position of the carbazole ring in formula (2). Mori et al fails to disclose, teach or suggest a compound of formula (2) wherein a carbon atom attached to R_1 in the polymer main chain is bonded to the 3- or 6-position of the carbazole ring. Thus, Mori et al fails to disclose, teach or suggest all elements of the presently claimed invention as recited in claim 9, as amended, and therefore the claimed invention is not anticipated nor rendered obvious. Claims 10-16 depend from claim 9 and are distinguished or at least the same reason.

Claim 21 is amended to recite a compound of formula (2) wherein a carbon atom to which R_1 is attached is bonded to the 3- or 6-position of the carbazole ring of formula (2). Mori et al fails to disclose, teach or suggest a compound of formula (2) wherein a carbon atom attached to R_1 in the polymer main chain is bonded to the 3- or 6-position of the carbazole ring. Thus, Mori et al fails to disclose, teach or suggest all elements of the presently claimed invention as recited in claim 21, as amended, and therefore the claimed invention is not anticipated nor

rendered obvious. Claims 22 and 24 depend from claim 21 and are distinguished for at least the same reasons.

Accordingly Applicants respectfully request withdrawal of the rejection.

III. Response to Claim Rejections Under 35 U.S.C. § 103

Claims 1, 7-8, 9 and 15-16 are rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Mori et al in view of Baldo et al.

First of all, this rejection is rendered moot by the claim amendments. Even so, Applicants offer the following comments and comparative evidence, in case the Examiner would consider raising this 103(a) rejection against the amended claims.

The Examiner asserts that Mori et al discloses an electroluminescent element comprising an anode and a cathode with an organic layer disposed therebetween, wherein the organic layer comprises various compounds that read on the present claims. The Examiner states that Mori et al does not disclose that the organic layer comprises a light emitting material that uses a triplet exciton for light emission wherein the light-emitting material is an iridium complex.

The Examiner relies on Baldo for the teaching of an organic light-emitting device that uses a triplet exciton for light emission. The Examiner further asserts that Baldo employs tris(2-phenylpyridine)iridium as the light emitting material. The Examiner states that triplet emission affects the power efficiency of the organic light emitting device. It is the Examiner's position that therefore it would have been obvious to one of ordinary skill in the art to use a triplet exciton wherein the light emitting material is an iridium complex so as to achieve peak quantum and power efficiencies of approximately 10%.

Applicants respectfully traverse the rejection. As previously discussed above Mori et al do not disclose, teach or suggest a compound of formula (2) wherein a carbon atom to which R_1 is attached is bonded to the 3- or 6-position of the carbazole ring as recited in the present claims. Baldo et al does not remedy this deficiency. Thus, the cited references, taken alone or in combination, do not teach or suggest all elements of the claimed invention.

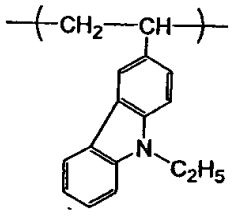
Further, the compounds of formula (2) of the present invention provide unexpectedly superior effects over the prior art. Thus one of ordinary skill in the art would not have been motivated to modify or combine the references with a reasonable expectation of success in achieving the presently claimed invention.

To demonstrate the unexpectedly superior effects of the present invention over the prior art, comparative experiments were conducted according to the procedure described in Example 1 of Mori et al using compound (1) and compound (2) of Mori et al. Table A below summarizes the brightness of Element Nos. 1-5, measured by applying 21 volts as described in Example 1. Element Nos. 1-5 were prepared as follows: Element No. 1 was prepared by the same procedure as described in Example 1; Element No. 2 was prepared by the same procedure as described in Example 1, except that compound H-11 was used instead of PVK (poly(N-vinylcarbazole); Element No. 3 was prepared by the same procedure as Example 1, except that compound H-1 was used instead of PVK; Element No. 4 was prepared by Example 1, except that compound H-4 was used instead of PVK; and Element No. 5 was prepared by Example 1, except that compound H-20 was used instead of PVK.

Table A

Element No.	Compound	Brightness (cd/m^2)	Remarks
1	PVK	200	Comparative Example
2	H-11	800	Comparative Example
3	H-1	1430	Present Invention
4	H-4	1650	Present Invention
5	H-20	1510	Present Invention

H-1



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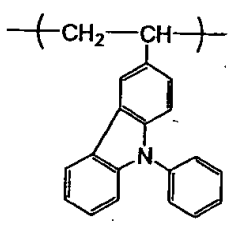
H-4



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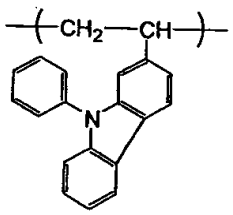
H-11



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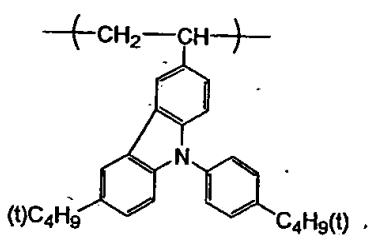
H-20



Mw=10000

As is clear from Table A above, the elements using the compounds bonding to the main carbon at the 3-position of the carbazole ring forming a side chain (in the formula (2) of the present invention) are capable of emitting light with higher brightness at the same voltage compared with compounds as disclosed by Mori et al and compounds bonding to the main chain at the 2-position of the carbazole ring forming a side chain (in formula (2) of the present invention). In support thereof, a Declaration under 37 C.F.R. § 1.132 is submitted herewith.

Thus, the claimed invention provides unexpectedly superior effects over the prior art, such that one of ordinary skill in the art would not have had a reasonable expectation of achieving the claimed invention even if the references could be combined.

Accordingly, Applicants respectfully request withdrawal of the rejection.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account

Respectfully submitted,

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